

We claim:

1. A granular material transport mechanism arranged in granular material flow communication with a granular material hopper, and disposed on its lower side thereof, for distribution of said granular material from a spreader on a truck, said mechanism comprising:

an elongated containment housing for enclosing a rotary feed shaft, said rotary feed shaft having longitudinal ends that extend beyond said housing;

a bearing support for said feed shaft arranged adjacent each longitudinal end of said feed shaft and outside of said containment housing; and

an opening on a lower side of said containment housing for communicating said granular material to said spreader arranged therebeneath.

2. The granular material mechanism as recited in claim 1, wherein a plurality of individual plates is disposed on said rotary shaft.
3. The granular material mechanism as recited in claim 2, wherein said plates are of planar configuration.

4. The granular material mechanism as recited in claim 2, wherein said plates are spaced apart from one another on said rotary feed shaft.
5. The granular material mechanism as recited in claim 2, wherein said plates are disposed at an angle of between 25 degrees and 45 degrees with respect to the longitudinal axis of said shaft.
6. The granular material mechanism as recited in claim 5, wherein said plates are disposed at an angle of about 33 degrees with respect to the longitudinal axis of said shaft.
7. The granular material mechanism as recited in claim 2, wherein said plates are of semicircular configuration.
8. The granular material mechanism as recited in claim 7, wherein said plates are of larger than semicircular configuration.
9. The granular material mechanism as recited in claim 2, wherein said plates are movably adjustable.

10. A method of transporting granular material in a sand distribution truck, from a sand hopper on said truck to a distribution spreader on said truck, comprising the steps of:

arranging a rotatable rotary feed shaft an elongated housing supported beneath said hopper;

attaching a plurality of plates on said shaft; and

rotating said shaft to transport said granular material from said hopper to said spreader.

11. The method as recited in claim 10, including the step of:

moving said plates on said shaft to accommodate changes in granular material churned thereby.

12. The method as recited in claim 10, wherein said plates are spaced apart from one another on said shaft.

13. The method as recited in claim 10, wherein said plates are generally of semicircular configure configuration.

14. The method as recited in claim 10, wherein said plates are planar and are attached to said shaft at an angle with respect to the longitudinal axis of said shaft.
15. The method as recited in claim 14, wherein said angle extends through a range of about 25 degrees to about 45 degrees.
16. A granular material transport mechanism arranged in granular material flow communication with a granular material hopper, and disposed on its lower side thereof, for distribution of said granular material from a spreader on a truck, said mechanism comprising:
- an elongated containment housing for enclosing a rotary feed shaft, said rotary feed shaft having longitudinal ends that extend beyond said housing;
  - a bearing support for said feed shaft arranged adjacent each longitudinal end of said feed shaft and outside of said containment housing;
  - an opening is arranged on a lower side of said containment housing for communicating said granular material to said spreader arranged therebeneath, and wherein a plurality of individual plates

are disposed on said rotary shaft, said plates being of planar configuration, said plates being spaced apart from one another on said rotary feed shaft, said plates being disposed at an angle of between 25 degrees and 45 degrees with respect to the longitudinal axis of said shaft and wherein said plates are of semicircular configuration.